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EXAMINER
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ROBINSON BOYCE, AKIBA K

ART UNIT	PAPER NUMBER
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3628

NOTIFICATION DATE	DELIVERY MODE
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09/17/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/715,715	<b>Applicant(s)</b> JOSEPHSEN ET AL.	
	<b>Examiner</b> AKIBA K. ROBINSON BOYCE	<b>Art Unit</b> 3628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 June 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,4-17,24,26-29 and 31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 4-17, 24, 26-29 and 31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

1. In view of the **Appeal Brief** filed on **6/10/08**, PROSECUTION IS HEREBY REOPENED. **A new ground of rejection is** set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

/JOHN W HAYES/

Supervisory Patent Examiner, Art Unit 3628

***Status of Claims***

2. Due to communications filed 6/10/08, the following is a non-final office action. Claims 1, 4-17, 24, 26-29 and 31 are pending in this application and have been examined on the merits. The previous rejection has been withdrawn, and claims 1, 4-17, 24, 26-29 and 31 are rejected as follows.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fernberg ("What are the Real Costs of Copying"), and further in view of Minowa et al (EP 1 248 219 A2).

As per claim 1, Fernberg discloses:

recording a type of media actually used, (paragraph 4, line 2, [note the types of originals used]);

determining an amortized cost related to the printing device per sheet of media and/or related to an operation of the printing device, (paragraph 7, lines 4-7, amortized over three years); and

calculating the cost of printing to the media by adding a cost of the single sheet of media actually used on the single sheet of media, and an amortized cost related to

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the printing device per sheet of media and/or related to an operation of the printing device/further comprising adding a cost of amortization of the printing device to the cost of the media and the cost of the pigment, (paragraph 7, lines 7-17, add cost of toners, paper, to amortized costs to ultimately determine total cost *per* copy, where It is obvious that the total amount of copies per month can always just be one copy).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to calculate an amortized cost for the total amount of copies per month where the total copy can always just be one copy with the motivation of calculating amortized costs for real-world values in the copying industry.

Fernberg does not specifically disclose "determining an amount of pigment used on the single sheet of media", however does disclose that toner is included in determining cost *per* copy, where the total amount of copies per month can always just be one copy in paragraph 6, line 4.

Minowa, however, discloses how to calculate the cost of the pigment per copy [0017]-[0020], [0105]-[0106], [0113] lines 25-31, [0123] lines 18-25, [0134]-[0135], and specifically discusses a "sheet cost in [0113] and [0123]. It therefore would have been obvious to combine the teachings of Fernberg and Minowa et al to determine an amount of pigment used on the single sheet of media. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to determine an amount of pigment used on the single sheet of media with the motivation of determining costs associated for printing a certain amount of pigment on a single sheet.

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Fernberg does not specifically disclose calculating the cost of printing to the media by adding a cost of the pigment used on the single sheet of media, however does disclose the incorporation of toner in paragraph 6, line 4, where toner is included in determining cost *per* copy, where the total amount of copies per month can always just be one copy.

However, Minowa et al discloses multiplying the color-specific amount by the respective prices of the color-specific unit amounts in [0015] and also shows calculating printing costs according to the resolution specified in [0020]. Also, Figures 4-8 of Minowa suggests that a single image is being printed on a single sheet multiplied by the number of sheets. It therefore would have been obvious combine the teachings of Fernberg and Minowa et al to determine the cost of pigment and use it to determine the cost of printing. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to determine the cost of pigment for determining the cost of printing with the motivation of incorporating pigment used when printing a sheet into cost calculation.

As per claim 31, Fernberg discloses:

providing a per page cost of a first media, a per page cost of a second media, a cost of pigment, and a per page amortized cost of a printing device, (Paragraph 7); and

requesting fulfillment of a print job and, after fulfilling at least a portion of the print job, (Paragraph 3), the printing device determining the cost associated with each page based on the pigment used and the use of either the first media or the second media

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and per page amortized cost for using the printing device, (paragraph 7, lines 4-7, amortized over three years, and paragraph 7, lines 7-17, add cost of toners, paper, to amortized costs to ultimately determine total cost per copy.

Fernberg does not specifically disclose the cost of pigment, however does disclose the incorporation of toner in paragraph 6, line 4, where toner is included in determining cost *per* copy, where the total amount of copies per month can always just be one copy.

However, Minowa et al discloses how to calculate the cost of the pigment per copy in [0017]-[0020], [0105]-[0106], [0113] lines 25-31, [0123] lines 18-25, [0134]-[0135], and specifically discusses a "sheet cost in [0113] and [0123]. Minowa et al also discloses multiplying the color-specific amount by the respective prices of the color-specific unit amounts in [0015] and also shows calculating printing costs according to the resolution specified in [0020]. It therefore would have been obvious combine the teachings of Fernberg and Minowa et al to determine the cost of pigment and use it to determine the cost of printing. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to determine the cost of pigment for determining the cost of printing with the motivation of incorporating pigment used when printing a sheet into cost calculation.

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5. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Minowa et al (EP 1 248 219 A2) and further in view of Fernberg ("What are the Real Costs of Copying").

As per claim 24, Minowa et al discloses

determine a number of dots in a first pane of a page of a print job, (in [0024]-[0026], calculating the amount of at least one coloring material to be consumed includes calculating the amount of the at least one coloring material to be consumed based on *the number of dots* to be printed for preparation of the printed matter);

multiplying the number of dots in the first pane by an average pigment cost per dot to determine the cost of a pigment associated with the first pane of a page, (multiplying the color-specific amounts by the respective prices of the color-specific amounts in [0015]);

calculate a cost of the pigment used and a cost of the media used, ([0113] and [0123] shows how to calculate the cost of the pigment per copy even discusses a "sheet cost");

and add the amortized cost to the cost of the pigment and the cost of the media, ([0135]-[0136], color specific amounts multiplied by a unit price, and further printing costs are added to obtained printing costs);

Minowa et al does not specifically disclose recording a type of media actually used, however does disclose a sheet cost for determining cost of printing as discussed above.



However, Fernberg discloses that the types of originals used are noted in [0004], line 2. It therefore would have been obvious to combine the teachings of Minowa et al and Fernberg to disclose recording a type of media actually used. It would have been obvious to one of ordinary skill in the art to record a type of media actually used with the motivation of determining the type of media to be used in calculating the costs of printing.

Minowa et al does not specifically disclose amortizing the cost of the printing device on a per operation basis, however does disclose calculating printing costs based on factors such as number of copies, where it is obvious that only one copy can be made, etc. as disclosed above, and that further printing costs are added to obtained printing costs as shown in [0135]-[0136].

However, Fernberg discloses amortization in printing over three years in [0007], lines 4-7. It therefore would have been obvious to combine the teachings of Minowa et al and Fernberg to disclose amortizing the cost of the printing device on a per operation basis. It would have been obvious to one of ordinary skill in the art to amortize the printing costs of the printing device on a per operation basis with the motivation of gradually writing off printing costs.

6. Claims 4-13, 15-17, are rejected under 35 U.S.C. 103(a) as being unpatentable over Fernberg ("What are the Real Costs of Copying"), and further in view of Minowa et al (EP 1 248 219 A2), and further in view of Lacheze et al (US 5,956,698).

As per claim 4, neither Fernberg nor Minowa et al specifically disclose the following, however Fernberg does disclose calculating the cost of copying in paragraph 7.

However, Lacheze et al discloses:

Further comprising allocating the cost of printing to the media to an entity, (Col. 4, lines 14-26, shows a system for printing or copying where billing information for prints/copies is transmitted to location selected by customer). Lacheze et al discloses this limitation in an analogous art for the purpose of showing that users are capable of electronically receiving accounting information in a print/copy system.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to allocate the cost of printing of the media to an entity with the motivation of allowing the user to physically access billing information.

As per claim 5, Fernberg discloses:

identifying an entity to which the costs will be allocated, (paragraph 3, [indicate user's name]);

recording a type of media actually used for the entity, (paragraph 4, line 2, [note the types of originals used]);

recording a number of sheets of the type of media actually used for the entity, (paragraph 3, line 3, number of originals and number of copies);

calculating a cost of the media actually used and a cost of the pigment used on all the sheets of media used for the entity, (paragraphs 5-7); and

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Fernberg does not specifically disclose determining an amount of pigment used on each of the sheets of media, however does disclose the incorporation of toner in paragraph 6, line 4, where toner is included in determining cost *per* copy, where the total amount of copies per month can always just be one copy.

However, Minowa et al discloses multiplying the color-specific amount by the respective prices of the color-specific unit amounts in [0015], and also shows specifying the number of copies, and calculating the printing costs according to the number of copies where it is obvious that only one copy is made in [0016], and also shows calculating printing costs according to the resolution specified in [0020]. It therefore would have been obvious combine the teachings of Fernberg and Minowa et al to determine the cost of pigment and use it to determine the cost of printing. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to determine the cost of pigment for determining the cost of printing with the motivation of incorporating pigment used when printing a sheet into cost calculation.

Neither Fernberg nor Minowa et al specifically disclose the following, however Fernberg does disclose calculating the cost of copying in paragraph 7.

However, Lacheze et al discloses:

allocating the cost of the media actually used and the cost of the pigment used to the entity, (Col. 4, lines 14-26, shows a system for printing or copying where billing information for prints/copies is transmitted to location selected by customer). Lacheze

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et al discloses this limitation in an analogous art for the purpose of showing that users are capable of electronically receiving accounting information in a print/copy system.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to allocate the cost of printing of the media to an entity with the motivation of allowing the user to physically access billing information.

As per claims 6, 7, Fernberg discloses:

further comprising storing the entity identification, the type of media, the number of sheets of media of a particular type and the amount of pigment used/further comprising storing the entity identification, the type of media, the number of sheets of media of a particular type and the amount of pigment used for each of the number of sheets of media in a print job, (paragraph 3, lines 1-4, user name, number of originals, number of copies, w/ paragraph 6, line 4, toner).

As per claim 8, Fernberg discloses:

determining the number of dots needed to form an image on a sheet, (Paragraph 16, lines 3-7, dpi or dots per inch for determining cost per copy for a color image);

Fernberg does not disclose multiplying the number of dots on the sheet by an average pigment cost per dot, however does disclose the determination of the cost of printing, and also discloses counting dots per inch for determining cost per copy for color costs in Paragraph 16, lines 3-7, which suggests that the number of dots is incorporated into, and effects the determination of the cost of color pigmentation on a copy.

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However Minowa et al discloses multiplying the color-specific amounts by the respective prices of the color-specific amounts in [0015], and also discloses that calculating the amount of at least one coloring material to be consumed includes calculating the amount of the at least one coloring material to be consumed based on the number of dots to be printed for preparation of the printed matter in [0024]-[0026].

It therefore would have been obvious to combine the teachings of Fernberg and Minowa to disclose multiplying the number of dots on the sheet by an average pigment cost per dot.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to multiply the number of dots on the sheet by an average pigment cost per dot, since in copying, costs are proportional to the amount of data on media, and data is directly proportional to the number of dots on the media.

As per claim 9, 10, 12, 13, Fernberg does not specifically disclose the following:

Wherein the average pigment cost to differ in response to a density of each dot on the sheet/wherein the cost of pigment varies as a function of the density of dots on a page varies, but does disclose counting dots per inch for determining cost per copy for color costs in Paragraph 16, lines 3-7, which suggests that the number of dots is incorporated into, and effects the determination of the cost of color pigmentation on a copy.

However, Minowa et al discloses that the amount of coloring material to be consumed is calculated based on the number of dots for printing on the printed matter

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as shown in [0024]-[0027], and also discloses that the calculation of printing costs include number of copies in [0016]. It would therefore be obvious to combine Fernberg with Minowa et al to disclose that the average pigment cost differs in response to a density of each dot on the sheet or for the average pigment cost of the first pigment to increase as the density of the dots increases.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention for the average pigment cost to differ in response to a density of each dot on the sheet or for the average pigment cost of the first pigment to increase as the density of the dots increases since in copying, costs are proportional to the amount of data on media, and data is directly proportional to the number of dots on the media.

As per claim 11, Fernberg discloses:

determining the number of dots of a color used to form a color pane, the color panes overlayed with one another to form an image, (Paragraph 16, lines 3-7, dpi or dots per inch for determining cost per copy for color costs);

Fernberg does not disclose multiplying the number of dots in the color pane by an average pigment cost per dot to allocate the cost of a pigment for a color associated with the image, however does disclose the determination of the cost of printing, and also discloses counting dots per inch for determining cost per copy for color costs in Paragraph 16, lines 3-7, which suggests that the number of dots is incorporated into, and effects the determination of the cost of color pigmentation on a copy.

However Minowa et al discloses multiplying the color-specific amounts by the respective prices of the color-specific amounts in [0015], and also discloses that calculating the amount of at least one coloring material to be consumed includes calculating the amount of the at least one coloring material to be consumed based on the number of dots to be printed for preparation of the printed matter in [0024]-[0026].

It therefore would have been obvious to combine the teachings of Fernberg and Minowa to disclose multiplying the number of dots in the color pane by an average pigment cost per dot to allocate the cost of a pigment for a color associated with the image.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to multiply the number of dots in the color pane by an average pigment cost per dot to allocate the cost of a pigment for a color associated with the image, since in copying, costs are proportional to the amount of data on media, and data is directly proportional to the number of dots on the media.

As per claims 15, neither Fernberg nor Minowa et al specifically disclose the following, but Fernberg does disclose cost reporting applied to type of print media/pigment as shown in paragraphs 5-7.

However, Lacheze et al discloses:

wherein identifying an entity to which the costs will be allocated further comprises entering a billing code associated with the entity, (col. 1, lines 52-58, shows example where billing meters are hard coded for selection by user). Lacheze et al discloses this

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limitation in an analogous art for the purpose of showing that a user can enter in parameters that will identify billing for a particular print job.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to enter in a billing code associated with the entity with the motivation of providing a way to bill a particular user for a print job.

As per claim 16, neither Fernberg nor Minowa et al specifically disclose the following, but Fernberg does disclose cost reporting applied to type of print media/pigment as shown in paragraphs 5-7.

However, Lacheze et al discloses:

wherein identifying an entity to which the costs will be allocated further comprises entering a billing code associated with the entity and a code associated with a print job, (Col. 10, lines 61-66, job identifier). Lacheze et al discloses this limitation in an analogous art for the purpose of showing that a user can enter in parameters that will identify billing for a particular print job.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to enter in a billing code associated with the entity and a code associated with a print job with the motivation of providing a way to bill a particular user for a print job.

As per claim 17, Fernberg discloses:

Further comprising adding a cost of amortization of the printing device to the cost of the media and the cost of the pigment, (paragraph 7).



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7. Claims 26-29, are rejected under 35 U.S.C. 103(a) as being unpatentable over Fernberg ("What are the Real Costs of Copying"), and further in view of Minowa et al (EP 1 248 219 A2), and further in view of McLean (US 2002/0099456 A1).

As per claims 26, Fernberg discloses:

a data storage system for storing information regarding a cost per sheet of media associated with the printing device, and a cost of pigment associated with the printing device, (paragraph 1, [auditron/copy counter inside machine], paragraph 7); and

record an actual number of sheets of media used to execute a print job and to record an amount of pigment used on each sheet of media for execution of the print job, the data processing system multiplying the actual number of sheets of media used by the cost per sheet of media...for each of the pages to determine a cost associated with the print job, the data processing system further operative to allocate the cost of the print job to an entity, (paragraph 3, number of originals/copies, paragraph 6, line4, toner include in determining cost per copy).

Fernberg does not specifically disclose adding the cost of pigment, however does disclose the incorporation of toner in paragraph 6, line 4, where toner is included in determining cost *per* copy, where the total amount of copies per month can always just be one copy.

However, Minowa et al discloses multiplying the color-specific amount by the respective prices of the color-specific unit amounts in [0015] and also shows calculating printing costs according to the resolution specified in [0020]. It therefore would have been obvious combine the teachings of Fernberg and Minowa et al to add the cost of

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pigment to determine the cost of printing. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to add the cost of pigment for determining the cost of printing with the motivation of incorporating pigment used when printing a sheet into cost calculation.

Fernberg does not specifically disclose the following, however does disclose a copier, where a log is taken for copies made over a three or four month period in paragraph 2, thereby suggesting that print jobs are sent to the copier if actual copies are being made, and making the following obvious:

a data processing system coupled to said data storage system and operative to receive a print job.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention for a data processing system to be coupled to the data storage with the motivation having the means to process the print job and make a print or copy.

Neither Fernberg nor Minowa et al disclose the following, but Fernberg does disclose cost reporting applied to type of print media/pigment as shown in paragraphs 5-7.

However, Lacheze et al discloses:

wherein allocating the cost of the print job to an entity includes storing a billing code in the data storage system associated with the entity, the data processing system

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reading a billing code associated with the print job and allocating the cost of the print job to the entity associated with the billing code, (Col. 10, lines 61-66, job identifier).

Lacheze et al discloses this limitation in an analogous art for the purpose of showing that a user can enter in parameters that will identify billing for a particular print job.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention where allocating the cost of the print job to an entity includes storing a billing code in the data storage system associated with the entity, the data processing system reading a billing code associated with the print job and allocating the cost of the print job to the entity associated with the billing code with the motivation of providing a way to bill a particular user for a print job.

As per claims 27, Fernberg discloses:

wherein said data storage system stores the cost of the pigment as a cost per dot of pigment, and wherein the data processing system records a number of dots per page..., (Paragraph 16, lines 3-7, dpi or dots per inch for determining cost per copy for a color image).

Fernberg does not disclose multiplying the number of dots on a particular page by the cost per dot to determine the cost of pigment per page, however does disclose the determination of the cost of printing, and also discloses counting dots per inch for determining cost per copy for color costs in Paragraph 16, lines 3-7, which suggests that the number of dots is incorporated into, and effects the determination of the cost of color pigmentation on a copy.

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However Minowa et al discloses multiplying the color-specific amounts by the respective prices of the color-specific amounts in [0015], and also discloses that calculating the amount of at least one coloring material to be consumed includes calculating the amount of the at least one coloring material to be consumed based on the number of dots to be printed for preparation of the printed matter in [0024]-[0026].

It therefore would have been obvious to combine the teachings of Fernberg and Minowa to disclose multiplying the number of dots on a particular page by the cost per dot to determine the cost of pigment per page.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to multiply the number of dots in the first pane by an average pigment cost per dot to determine the cost of a pigment associated with the first pane of a page since in copying, costs are proportional to the amount of data on media, and data is directly proportional to the number of dots on the media.

As per claim 28, Fernberg does not specifically disclose the following:

Wherein the average pigment cost to differ in response to a density of each dot on the sheet/wherein the cost of pigment varies as a function of the density of dots on a page varies.

But Fernberg does disclose counting dots per inch for determining cost per copy for color costs in Paragraph 16, lines 3-7, which suggests that the number of dots is incorporated into, and effects the determination of the cost of color pigmentation on a copy.

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However, official notice is taken that it is old and well known in the copy art for the average pigment cost to differ in response to a density of each dot on the sheet or for the average pigment cost of the first pigment to increase as the density of the dots increases.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention for the average pigment cost to differ in response to a density of each dot on the sheet or for the average pigment cost of the first pigment to increase as the density of the dots increases since in copying, costs are proportional to the amount of data on media, and data is directly proportional to the number of dots on the media.

As per claims 29, Fernberg discloses:

wherein the data storage system also stores an amortized cost for wear on the printing device based on the number of sheets of media anticipated to be printed over the life of the printing device, the amortized cost on a per sheet of media basis, the data processing system adding the amortized cost per sheet of media to the cost of the sheets of media and the cost of the pigment, (paragraph 7, lines 4-7, amortized over three years, where average life-cycle of a copier is about three years, so amortizing over this period of time represents wear on the printing device, and paragraph 7, lines 7-17, add cost of ...toners...paper, to amortized costs to ultimately determine total cost per copy).

Fernberg does not specifically disclose adding the cost of pigment, however does disclose the incorporation of toner in paragraph 6, line 4, where toner is included in

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determining cost *per* copy, where the total amount of copies per month can always just be one copy.

However, Minowa et al discloses multiplying the color-specific amount by the respective prices of the color-specific unit amounts in [0015] and also shows calculating printing costs according to the resolution specified in [0020]. It therefore would have been obvious combine the teachings of Fernberg and Minowa et al to add the cost of pigment when determining the cost of printing. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to determine the cost of pigment for determining the cost of printing with the motivation of incorporating pigment used when printing a sheet into cost calculation.

8. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fernberg ("What are the Real Costs of Copying"), and further in view of Minowa et al (EP 1 248 219 A2), and further in view of Lacheze et al (US 5,956,698), and further in view of McLean (US 2002/0099456 A1).

As per claims 14, Fernberg discloses:

determining a number of dots, (Paragraph 16, lines 3-7, dpi or dots per inch for determining cost per copy for a color image);

Fernberg does not disclose multiplying the number of dots in the first color pane by an average pigment cost per dot to allocate/multiplying the number of dots in the second color pane by an average pigment cost per dot of a second color to allocate the cost of a pigment for the second color associated with a page, however does

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disclose the determination of the cost of printing, and also discloses counting dots per inch for determining cost per copy for color costs in Paragraph 16, lines 3-7, which suggests that the number of dots is incorporated into, and effects the determination of the cost of color pigmentation on a copy.

However Minowa et al discloses multiplying the color-specific amounts by the respective prices of the color-specific amounts in [0015], and also discloses that calculating the amount of at least one coloring material to be consumed includes calculating the amount of the at least one coloring material to be consumed based on the number of dots to be printed for preparation of the printed matter in [0024]-[0026].

It therefore would have been obvious to combine the teachings of Fernberg and Minowa to disclose multiplying the number of dots in the first color pane by an average pigment cost per dot to allocate/multiplying the number of dots in the second color pane by an average pigment cost per dot of a second color to allocate the cost of a pigment for the second color associated with a page.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to multiply the number of dots in the first color pane by an average pigment cost per dot to allocate/multiplying the number of dots in the second color pane by an average pigment cost per dot of a second color to allocate the cost of a pigment for the second color associated with a page since in copying, costs are proportional to the amount of data on media, and data is directly proportional to the number of dots on the media.

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Neither Fernberg, Minowa et al, nor Lacheze et al specifically disclose the following, but Fernberg does disclose determining cost per copy in paragraph 5.

However, McLean discloses:

separating the print job into a first color pane and a second color pane/  
determining...in a first color pane, determining...in a second color pane, ([0048], shows display screen consist of 3 panes, w/ [0064], shows definition of pane colors, therefore if there are 3 panes, there are therefore at least 3 different pane colors). McLean discloses this limitation in an analogous art for the purpose of showing that multiple color panes are used to control a printer or copier setting.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to separate the print job into first and second color panes with the motivation of allowing prints to be printed out with different colors.

### ***Response to Arguments***

9. Applicant's arguments with respect to claims 1, 4-17, 24, 26-29 and 31 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Akiba K Robinson-Boyce whose telephone number is 571-272-6734. The examiner can normally be reached on Monday-Friday 9am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Hayes can be reached on 571-272-6708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

A. R. B.  
August 30, 2008

/Akiba K Robinson-Boyce/

Primary Examiner, Art Unit 3628